



SAT-MOD-20041102-00206  
 With attached conditions  
 S2609 (Grant Date) 1/26/2005  
 Approved by OMB  
 3060-0678

Date & Time Filed: Nov 2 2004 1:05:10:186PM  
 File Number: SAT-MOD-20041102-00206

see conditions see conditions  
 M.A. Chief Satellite  
 Robert G Nelson Engineering Branch

FCC APPLICATION FOR SPACE AND EARTH STATION:MOD OR AMD - MAIN FORM	FCC Use Only
FCC 312 MAIN FORM FOR OFFICIAL USE ONLY	

APPLICANT INFORMATION

Enter a description of this application to identify it on the main menu:  
 121 W.L. Modification

1-8. Legal Name of Applicant

<b>Name:</b>	EchoStar Satellite L.L.C.	<b>Phone Number:</b>	303-723-1000
<b>DBA Name:</b>		<b>Fax Number:</b>	303-723-1699
<b>Street:</b>	9601 South Meridian Blvd.	<b>E-Mail:</b>	david.moskowitz@echostar.com
<b>City:</b>	Englewood	<b>State:</b>	CO
<b>Country:</b>	USA	<b>Zipcode:</b>	80112 -
<b>Attention:</b>	David K Moskowitz		

**Attachment**  
**Conditions of Authorization**  
**January 26, 2005**

1. Echostar Satellite L.L.C.'s ("Echostar") request, File No. SAT-MOD-20041102-00206, to modify its authorization, SAT-LOA-20031215-00355 (Call Sign S2609),<sup>1</sup> to include authority to operate in the 10.95-11.2 GHz frequency bands IS GRANTED. Accordingly, Echostar is authorized to launch and operate its Echostar-121W-KuX extended Ku-band satellite at the 121° W.L orbital location satellite in the 10.95-11.2 GHz (space-to-Earth), 11.45-11.7 GHz (space-to-Earth), and 13.75-14.0 GHz (Earth-to-space) frequency bands in accordance with the terms, conditions, and technical specifications set forth in its application, this Attachment, and the Federal Communications Commission's Rules.
2. EchoStar's request for waiver of NG104 of the U.S. Table of Allocations and footnote 2 of Section 25.202(a)(2), in order to provide domestic service using receive-only earth stations in the 10.95-11.2 GHz in addition to the 11.45-11.7 GHz band IS GRANTED. We find that this grant is consistent with previous Commission actions<sup>2</sup>.
3. EchoStar shall operate its receive-only earth stations in the 10.95-11.2 GHz and 11.45-11.7 GHz bands on a non-interference basis relative to FS stations and EchoStar shall not claim protection from harmful interference from any authorized FS stations to which frequencies are either already assigned, or may be assigned in the future.
4. EchoStar is required to inform its customers in writing, including end-users receiving service from resellers accessing capacity on Echostar-121W-KuX, that the service is being provided on an uncoordinated basis, and of the potential for interference from FS operations.
5. TT&C operations in the 11.45-11.7 GHz frequency bands pertain only to TT&C transmissions between a single GSO satellite at 121° W.L. and a maximum of one fixed earth station within the continental United States & its Possessions (US&P).

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<sup>1</sup> Application of EchoStar KuX Corporation Application for Authority to Construct, Launch and Operate a Geostationary Satellite Using the Extended Ku-band Frequencies in the Fixed-Satellite Service at the 121° W.L. Orbital Location, File No. SAT-LOA-20031215-00355, DA 04-3164, *Order and Authorization*.

<sup>2</sup> Application of EchoStar KuX Corporation Application for Authority to Construct, Launch and Operate a Geostationary Satellite Using the Extended Ku-band Frequencies in the Fixed-Satellite Service at the 109° W.L. Orbital Location, File No. SAT-LOA-20031211-00350, DA 04-3163, *Order and Authorization*.

6. EchoStar shall coordinate its potential TT&C earth station operations with terrestrial FS stations in accordance with Section 25.203 of the Commission's rules.
7. In the 13.75-14.0 GHz band, all earth station operators in the US&P are required to coordinate through NTIA's Interdepartment Radio Advisory Committee's Frequency Assignment Subcommittee.<sup>3</sup>
8. Operation of the Echostar-121W-KuX satellite network in the 13.75-14.0 GHz band shall be in accordance with footnotes US356 and US357 to 47 C.F.R. § 2.106 in the US&P, including that an earth station in the fixed-satellite service shall have a minimum antenna diameter of 4.5 meters, and with footnotes 5.502 and 5.503 to the ITU Radio Regulations outside of the US&P.<sup>4</sup>
9. Echostar-121W-KuX must be constructed, launched, and placed into operation in accordance with the technical parameters and terms and conditions of this authorization by these specified time periods following the date of authorization<sup>5</sup>:
  - a. Execute a binding contract for construction by 9/30/2005;
  - b. Complete the Critical Design Review by 9/30/2006;
  - c. Commence construction by 9/30/2007;
  - d. Launch and begin operations by 9/30/2009.

Failure to meet any of these dates shall render this authorization null and void. *See* 47 C.F.R. §§ 25.161 and 25.164.

10. EchoStar shall prepare the necessary information, as may be required, for submission to the ITU to initiate and complete the advance publication, international coordination, due diligence, and notification process of this space

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<sup>3</sup> The 13.75-14.0 GHz band is shared on a primary basis with the Government radiolocation and with the forward space-to-space and space-to-Earth links of the NASA Tracking and Data Relay Satellite (TDRS) System in the space research service, earth stations in the United States and its Possessions ("US&P") operating with the Echostar-121W-KuX satellite will require coordination through the National Telecommunications and Information Administration (NTIA) Interdepartment Radio Advisory Committee's (IRAC) Frequency Assignment Subcommittee (FAS). *See* 47CFR 2.106 FN US337. In this regard, we have received a letter from the NTIA requesting that we identify these requirements in any grant of authority to operate a satellite in the 13.75-14.0 GHz band. *See* Letter from William Hatch, Acting Associate Administrator, Office of Spectrum Management, NTIA, to Roderick Porter, Acting Chief, International Bureau, Federal Communications Commission (May 11, 1999). *See Also* Amendment of Parts 2, 25, and 90 of the Commission's Rules to Allocate the 13.75-14.0 GHz Band to the Fixed-Satellite Service, ET Docket No. 96-20, Report and Order, 11 FCC Rcd 11951, 11960-61

<sup>4</sup> Domestically, footnotes US356 and US357 are applicable. Internationally, footnotes 5.502 and 5.503 to the International Telecommunication Union (ITU) Radio Regulations also place certain restrictions on FSS operations. We require that earth stations in the US&P operate in accordance with U.S. footnotes US356 and US357. For non-US&P earth stations accessing the Echostar-121W-KuX satellite, we require operation to be consistent with international footnotes 5.502 and 5.503.

<sup>5</sup> EchoStar posted a \$3 million bond with the Commission, pursuant to the procedures set forth in Public Notice, DA 03-2603, 18 FCC Rcd 16283 (2003).

station, in accordance with the ITU Radio Regulations. EchoStar shall be held responsible for all cost recovery fees associated with these ITU filings. We also note that no protection from interference caused by radio stations authorized by other administrations is guaranteed unless coordination and notification procedures are timely completed or, with respect to individual administrations, by successfully completing coordination agreements. Any radio station authorization for which coordination has not been completed may be subject to additional terms and conditions as required to effect coordination of the frequency assignments of other administrations. *See* 47 C.F.R. § 25.111(b).

11. The license term for the Echostar-121W-KuX, Call Sign S2609, is fifteen years and will begin to run on the date that EchoStar certifies to the Commission that the satellite has been successfully placed into orbit and its operation fully conforms to the terms and conditions of this authorization.
12. Operators of earth stations accessing the Echostar-121W-KuX satellite in the 13.75 - 14.0 GHz band are urged to cooperate voluntarily with NASA in order to facilitate continued operation of NASA's Tropical Rainfall Measuring Mission (TRMM) satellite.<sup>6</sup>
13. Echostar is afforded thirty days from the date of release of this grant and authorization to decline this authorization as conditioned. Failure to respond within this period will constitute formal acceptance of the authorization as conditioned.
14. This Grant is issued pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 C.F.R. § 0.261, and is effective upon release. Petitions for reconsideration under Section 1.106 or applications for review under Section 1.115 of the Commission's rules, 47 C.F.R. §§ 1.106, 1.115, may be filed within 30 days of the date of the public notice indicating that this action was taken.

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<sup>6</sup> NTIA noted that NASA's Tropical Rainfall Measuring Mission (TRMM) satellite system radar in the band 13.793-13.805 GHz is still operating. Since TRMM is a highly valuable and visible U.S. asset, with a broad range of international users, NTIA has requested cooperation from the FCC and non-Federal Government entities in providing assistance in reducing interference with the TRMM radar. NTIA notes that it desires that FSS earth stations in the 13.793 - 13.805 GHz frequency band located south of 39° N. and east of 110° W. operate with emission levels below -150 dBW/600 kHz at the TRMM space station receiver. As this is a request and not a requirement, considering the secondary nature of the TRMM operation, we urge, but do not require, operators of earth stations accessing the Echostar-121W-KuX satellite in the 13.75 - 14.0 GHz band to cooperate voluntarily with NASA in order to facilitate continued operation of the TRMM satellite. *See* Letter from Frederick R. Wentland, Acting Associate Administrator, Office of Spectrum Management, NTIA, to Don Abelson, Chief, International Bureau, FCC (February 28, 2002).

9-16. Name of Contact Representative (If other than applicant)

<b>Name:</b>	Pantelis Michalopoulos	<b>Phone Number:</b>	202-429-3000
<b>Company:</b>	Step toe & Johnson	<b>Fax Number:</b>	202-429-3902
<b>Street:</b>	1330 Connecticut Ave., N.W.	<b>E-Mail:</b>	pmichalo@steptoe.com
<b>City:</b>	Washington	<b>State:</b>	DC
<b>Country:</b>	USA	<b>Zipcode:</b>	20036-
<b>Contact Title:</b>		<b>Relationship:</b>	

CLASSIFICATION OF FILING

<p>17. Choose the button next to the classification that applies to this filing for both questions a. and b. Choose only one for 17a and only one for 17b.</p> <p><input type="radio"/> a1. Earth Station</p> <p><input checked="" type="radio"/> a2. Space Station</p>	<p>(N/A) b1. Application for License of New Station</p> <p>(N/A) b2. Application for Registration of New Domestic Receive-Only Station</p> <p><input type="radio"/> (N/A) b3. Amendment to a Pending Application</p> <p><input checked="" type="radio"/> (N/A) b4. Modification of License or Registration</p> <p>b5. Assignment of License or Registration</p> <p>b6. Transfer of Control of License or Registration</p> <p><input type="radio"/> (N/A) b7. Notification of Minor Modification</p> <p>(N/A) b8. Application for License of New Receive-Only Station Using Non-U.S. Licensed Satellite</p> <p>(N/A) b9. Letter of Intent to Use Non-U.S. Licensed Satellite to Provide Service in the United States</p> <p><input type="radio"/> (N/A) b10. Other (Please specify)</p>
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<p>17c. Is a fee submitted with this application?</p> <p><input checked="" type="radio"/> If Yes, complete and attach FCC Form 159. If No, indicate reason for fee exemption (see 47 C.F.R. Section 1.1114).</p> <p><input type="radio"/> Governmental Entity    <input type="radio"/> Noncommercial educational licensee</p> <p><input type="radio"/> Other (please explain):</p>	
<p>17d.</p> <p>Fee Classification BFY – Space Station Modification (Geostationary)</p>	
<p>18. If this filing is in reference to an existing station, enter:</p> <p>(a) Call sign of station: S2609</p>	<p>19. If this filing is an amendment to a pending application enter both fields, if this filing is a modification please enter only the file number:</p> <p>(a) Date pending application was filed:</p> <p>(b) File number: SATLOA2003121500355</p>

TYPE OF SERVICE

<p>20. NATURE OF SERVICE: This filing is for an authorization to provide or use the following type(s) of service(s): Select all that apply:</p> <p><input checked="" type="checkbox"/> a. Fixed Satellite <input type="checkbox"/> b. Mobile Satellite <input type="checkbox"/> c. Radiodetermination Satellite <input type="checkbox"/> d. Earth Exploration Satellite <input checked="" type="checkbox"/> e. Direct to Home Fixed Satellite <input type="checkbox"/> f. Digital Audio Radio Service <input type="checkbox"/> g. Other (please specify)</p>	
<p>21. STATUS: Choose the button next to the applicable status. Choose only one. <input checked="" type="radio"/> Common Carrier    <input checked="" type="radio"/> Non-Common Carrier</p>	<p>22. If earth station applicant, check all that apply. <input type="checkbox"/> Using U.S. licensed satellites <input type="checkbox"/> Using Non-U.S. licensed satellites</p>
<p>23. If applicant is providing INTERNATIONAL COMMON CARRIER service, see instructions regarding Sec. 214 filings. Choose one. Are these facilities: <input checked="" type="radio"/> Connected to a Public Switched Network    <input type="radio"/> Not connected to a Public Switched Network    <input checked="" type="radio"/> N/A</p>	
<p>24. FREQUENCY BAND(S): Place an 'X' in the box(es) next to all applicable frequency band(s). <input type="checkbox"/> a. C-Band (4/6 GHz)    <input type="checkbox"/> b. Ku-Band (12/14 GHz) <input checked="" type="checkbox"/> c. Other (Please specify upper and lower frequencies in MHz.) Frequency Lower: 10950    Frequency Upper: 14000    (Please specify additional frequencies in an attachment)</p>	

TYPE OF STATION

25. CLASS OF STATION: Choose the button next to the class of station that applies. Choose only one.

- a. Fixed Earth Station
- b. Temporary-Fixed Earth Station
- c. 12/14 GHz VSAT Network
- d. Mobile Earth Station
- e. Geostationary Space Station
- f. Non-Geostationary Space Station
- g. Other (please specify)

26. TYPE OF EARTH STATION FACILITY:

- Transmit/Receive     Transmit-Only     Receive-Only     N/A

"For Space Station applications, select N/A."



PURPOSE OF MODIFICATION

27. The purpose of this proposed modification is to: (Place an 'X' in the box(es) next to all that apply.)

a -- authorization to add new emission designator and related service

b -- authorization to change emission designator and related service

c -- authorization to increase EIRP and EIRP density

d -- authorization to replace antenna

e -- authorization to add antenna

f -- authorization to relocate fixed station

g -- authorization to change frequency(ies)

h -- authorization to add frequency

i -- authorization to add Points of Communication (satellites & countries)

j -- authorization to change Points of Communication (satellites & countries)

k -- authorization for facilities for which environmental assessment and

radiation hazard reporting is required

l -- authorization to change orbit location

m -- authorization to perform fleet management

n -- authorization to extend milestones

o -- Other (Please specify)

ENVIRONMENTAL POLICY

28. Would a Commission grant of any proposal in this application or amendment have a significant environmental impact as defined by 47 CFR 1.1307? If YES, submit the statement as required by Sections 1.1308 and 1.1311 of the Commission's rules, 47 C.F.R. 1.1308 and 1.1311, as an exhibit to this application. A Radiation Hazard Study must accompany all applications for new transmitting facilities, major modifications, or major amendments.  Yes  No

ALIEN OWNERSHIP Earth station applicants not proposing to provide broadcast, common carrier, aeronautical en route or aeronautical fixed radio station services are not required to respond to Items 30–34.

29. Is the applicant a foreign government or the representative of any foreign government?	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> N/A
30. Is the applicant an alien or the representative of an alien?	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> N/A
31. Is the applicant a corporation organized under the laws of any foreign government?	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> N/A
32. Is the applicant a corporation of which more than one-fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> N/A

37. Has the applicant, or any party to this application or amendment, or any party directly or indirectly controlling the applicant ever been convicted of a felony by any state or federal court? If Yes, attach as an exhibit, an explanation of circumstances.

Yes  No

38. Has any court finally adjudged the applicant, or any person directly or indirectly controlling the applicant, guilty of unlawfully monopolizing or attempting unlawfully to monopolize radio communication, directly or indirectly, through control of manufacture or sale of radio apparatus, exclusive traffic arrangement or any other means or unfair methods of competition? If Yes, attach as an exhibit, an explanation of circumstances

Yes  No

39. Is the applicant, or any person directly or indirectly controlling the applicant, currently a party in any pending matter referred to in the preceding two items? If yes, attach as an exhibit, an explanation of the circumstances.

Yes  No

40. If the applicant is a corporation and is applying for a space station license, attach as an exhibit the names, address, and citizenship of those stockholders owning a record and/or voting 10 percent or more of the Filer's voting stock and the percentages so held. In the case of fiduciary control, indicate the beneficiary(ies) or class of beneficiaries. Also list the names and addresses of the officers and directors of the Filer.

Response to Q 40

41. By checking Yes, the undersigned certifies, that neither applicant nor any other party to the application is subject to a denial of Federal benefits that includes FCC benefits pursuant to Section 5301 of the Anti-Drug Act of 1988, 21 U.S.C. Section 862, because of a conviction for possession or distribution of a controlled substance. See 47 CFR 1.2002(b) for the meaning of "party to the application" for these purposes.

Yes  No

42a. Does the applicant intend to use a non-U.S. licensed satellite to provide service in the United States? If Yes, answer 42b and attach an exhibit providing the information specified in 47 C.F.R. 25.137, as appropriate. If No, proceed to question 43.

Yes  No

42b. What administration has licensed or is in the process of licensing the space station? If no license will be issued, what administration has coordinated or is in the process of coordinating the space station?N/A

43. Description. (Summarize the nature of the application and the services to be provided). (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.)

See attachment for narrative, waiver request, and technical annex.

121W Modification an

**CERTIFICATION**

The Applicant waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and requests an authorization in accordance with this application. The applicant certifies that grant of this application would not cause the applicant to be in violation of the spectrum aggregation limit in 47 CFR Part 20. All statements made in exhibits are a material part hereof and are incorporated herein as if set out in full in this application. The undersigned, individually and for the applicant, hereby certifies that all statements made in this application and in all attached exhibits are true, complete and correct to the best of his or her knowledge and belief, and are made in good faith.

44. Applicant is a (an): (Choose the button next to applicable response.)

- Individual
- Unincorporated Association
- Partnership
- Corporation
- Governmental Entity
- Other (please specify)

45. Name of Person Signing  
David K. Moskowitz

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46. Title of Person Signing  
Executive Vice President & General Counsel

**WILLFUL FALSE STATEMENTS MADE ON THIS FORM ARE PUNISHABLE BY FINE AND / OR IMPRISONMENT  
(U.S. Code, Title 18, Section 1001), AND/OR REVOCATION OF ANY STATION AUTHORIZATION  
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